

Reconsideration and allowance of this application are respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,728 to Hiraishi, in view of Applicants' disclosed Related Art and U.S. Patent No. 6,100,954 to Kim et al. (Kim). This rejection is respectfully traversed.

At the outset, Applicants assert that no admission of Prior Art in the Applicants' disclosure has been made.

In making the rejection, the Examiner states that although the structure disclosed by Hiraishi is not exactly the same as the application claimed, all of the limitations claimed in claims 1, 15, and 22 are covered by Hiraishi except for the limitation of the pixel electrode is not over the gate electrode. The Examiner further states that the Applicants' related art discloses that the pixel electrode is not over the gate electrode, and Kim also discloses that the pixel electrode is not over the gate electrode.

The Examiner concludes that it would have been obvious to those skilled in the art at the time the invention was made to form a low reflective layer on at least a portion of the data line, and to form the pixel electrode to not be over the

gate electrode, as claimed in claims 1, 15 and 22, for enhancing display quality. Applicants respectfully disagree.

The background section of the Hiraishi patent itself discloses a Prior Art pixel electrode 54 which does not cover TFT 51 (see Hiraishi, Fig. 12). More particularly, Hiraishi discloses a gate electrode 62 which is not covered by the pixel electrode 54 (see Hiraishi, Fig. 13). Hiraishi's invention is made to overcome the shortcomings of the prior art devices where the pixel electrode does not cover the gate electrode of the TFT by specifically and intentionally covering the TFT with the pixel electrode. To modify Hiraishi as the Examiner suggests would go against the teachings of Hiraishi and proceed in exactly the opposite direction as Hiraishi. As the Examiner must appreciate, a prior art reference that teaches away from the claimed invention is a significant factor to be considered in determining obviousness. Viewing the teachings of Hiraishi in their entirety, Applicants submit that the modification proposed by the Examiner would not be obvious to one of ordinary skill in the art. A prior art reference must be considered in its entirety, as a whole, including portions that would lead away from the claimed invention. Further, Applicants submit that the only reason to make such a modification to Hiraishi would be to deprecate Applicants' claimed invention, relying on Applicants' own teachings as a blueprint, which is not permissible.

Instead of taking steps to make what the Examiner asserts to be an obvious combination, the inventor in Hiraishi chose a direction contrary to what is asserted to be obvious. That is, in Hiraishi, the inventor chose to have a pixel electrode cover the gate electrode in the device of Hiraishi, rather than make the combination that is asserted by the Examiner to be obvious i.e., not having a pixel electrode over the gate electrode in order to enhance display quality.

One of ordinary skill in the art, upon studying Hiraishi, would not have looked to Kim or the Applicants' related art to make a combination as claimed, since the Hiraishi patent teaches away from forming the pixel electrode to not be located over the gate electrode, because instead of this feature, Hiraishi actually made the modification to produce a pixel electrode that covers the gate electrode.

Therefore, Hiraishi fails to disclose or suggest a pixel electrode formed on the surface of the passivation layer, but not over said gate electrode to act as a light shielding layer therefor, said pixel electrode providing a gap space over said data line so as not to shield light therefrom, and/or a low reflective layer formed on at least a portion of said data line, said data line having no light shielding layer formed thereover, as recited in independent claim 1, and similarly stated in independent claims 15 and 22. Neither Kim, nor the Applicants' related art can fill this vacancy.

Claims 2-14, 16-21 and 23-25 depend, either directly or indirectly on independent claims 1, 15, and 22. Since neither Hiraishi, nor Kim, nor

Applicant's disclosed related art discloses or suggests the above-recited features of independent claims 1, 15 and 22, Hiraishi, in view Kim and the related art cannot render claims 1-25 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Registration No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

Prompt and favorable consideration of this Request for Reconsideration is respectfully requested.

Application No.: 09/550,282
Art Unit 2871

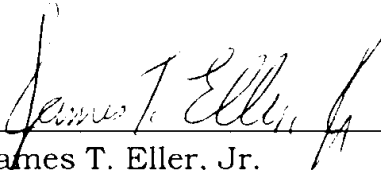
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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